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The U.S. Experience with Joint Trial Flights — A History

This article reviews the history and benefits of U.S. participation in joint trial flights (JTFs). These training flights allowed the United States and other signatory states to gain valuable experience primarily before, but also after, the Treaty on Open Skies entered into force (EIF) on January 1, 2002.

Overview

The United States, Canada, and 28 European countries are States Parties to the Treaty on Open Skies (Kyrgyzstan has signed but not yet ratified the Treaty). Originally negotiated between members of the North Atlantic Treaty Organization (NATO) and of the former Warsaw Pact, Treaty membership is open to the member states of the Organization for Security and Cooperation in Europe (OSCE). The international forum established to facilitate treaty implementation is the Open Skies Consultative Commission (OSCC), which is also responsible for considering the application of countries wishing to join the Treaty.

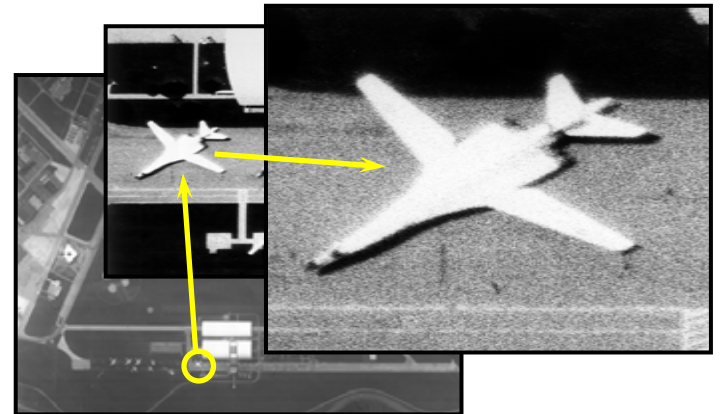


Inspection personnel viewing Open Skies sensors on U.S. OC-135B

The purpose of Open Skies observation flights is to improve peace and security among the States Parties by promoting openness and transparency in military forces and equipment. Therefore, the Treaty permits States Parties to fly over each other's

territory using observation aircraft equipped with a variety of specified sensors. These sensors include:

- Optical panoramic and framing cameras
- Video cameras with real-time display
- Infrared line-scanning devices¹
- Sideways-looking synthetic aperture radar (SAR)²



Open Skies Imagery

Any area or facility in the United States may be imaged during an Open Skies observation flight, and collected sensor data may be obtained by any State Party for the price of data replication. Areas may only be restricted due to flight safety concerns, not on the basis of national security concerns.

Background of JTFs

Joint trial flights are similar to actual Open Skies missions and are performed by two or more States Parties for the purposes of training, fine-tuning procedures, and enhancing confidence and cooperation. Although JTFs do not affect a participating Party's quotas (active or passive)³ for observation mission flights, participants perform

¹ Infrared imaging equipment cannot be used until 31 December 2005.

² There are currently no countries using or pursuing the use of SAR.

³ Active quotas denote the number of overflights a Party may conduct as an observing Party. Passive quotas are the number of observation flights each Party is obligated to accept as an observed Party. The U.S. allocation is currently 31 active and 31 passive quotas per year at full implementation; beginning in calendar year 2006 these quotas will increase to 42 active and 42 passive.

JTFs according to most of the Treaty's provisions. This allows JTFs to simulate observation flights as closely as possible.

A significant difference between JTFs and actual observation flights is that participating Parties usually agree months in advance to conduct a JTF. In contrast, actual observation flights only require the observing Party to provide 72 hours advance notification prior to their estimated time of arrival. The observed party must reply within 24 hours, which permits little, if any, time for preparation. It is also noteworthy that JTFs may not violate any special-use airspace to ensure they do not interfere with training or other activities.

Typically, before each JTF, the Defense Threat Reduction Agency (DTRA) On-Site Inspection Directorate (OS) sends representatives to the country participating in the JTF. The OS representative meets with their counterpart to develop the schedule and plan for the flight. They set the mission dates, decide how jet fuel will be purchased, determine how the aircraft will be serviced, and agree on all the payment rules, such as who will pay for hotel accommodations. In addition, they will discuss visas and customs regulations.



Onboard Russian TU-154 Observation Aircraft

About 4 to 6 weeks prior to the mission, the joint U.S. mission planning team wraps up the remaining details concerning the flight plan and areas to be imaged. Then, according to treaty timelines, the observing Party sends a message to the host country detailing the arrival time and mission personnel. The balance of the JTF is subsequently

carried out like an actual Open Skies observation mission.

Importantly, despite EIF, access to the sensor data collected during JTFs is restricted. Only the observing and observed Parties receive copies of this data, unless both agree to release it to third Parties.

History

In April 1993, Canada conducted the first JTF over the United States. In July 1993, the United States built on that experience and, using a U.S. Convair CV-580, performed two flights over Hungary and observed several Conventional Armed Forces in Europe (CFE) treaty declared sites. This flight, however, was not a full-scale mock mission. Mostly optical images and some SAR data were collected. From that time, the United States regularly participated in JTFs, either as an observing (active) party or as an observed (passive) party.

The history of JTF participation plays a large role in determining which countries the United States asks to participate in future JTFs. When selecting countries for the following year, personnel in DTRA/OS begin by composing a list of signatory states having the longest elapsed time without participating in a JTF with the United States. The Directorate then submits the list to an interagency group of personnel from the DoD, the State Department, and other participating government agencies. Analysts and policymakers then add or delete countries from the list based upon their analyses. Once a final list is approved, DTRA/OS personnel begin planning the JTFs.

Through December 2003, the United States has participated in 97 JTFs, either as an observing (active) or as an observed (passive) Party. The following is a list of the JTFs in which the United States has participated:

Passive JTFs (36):

Canada	April 1993
Germany	December 1993
Ukraine	August 1994
Germany	June 1995
Poland	February 1997
Slovakia	March 1997
Ukraine	April 1997

Hungary	June 1997
Russia	July 1997
Turkey	September 1997
Czech Republic	February 1998
Bulgaria	July 1998
Canada	August 1998
Ukraine	February 1999
France	February 1999
Finland	March 1999
Czech Republic	April 1999
Italy	May 1999
Greece	November 1999
Slovenia	March 2000
Russia	July 2000 ⁴
Ukraine	September 2000
Hungary	November 2000
Benelux	November 2000 ⁵
Germany	January 2001
Ukraine	February 2001
Poland	April 2001
Romania	May 2001
Sweden/Finland	July 2001
Slovakia/ Czech Rep.	September 2001
Slovakia/ Czech Rep.	July 2002
Italy	September 2002
Bosnia/ Herzegovina	March 2003
Bulgaria	October 2003
The Baltics	November 2003
United Kingdom	December 2003

Active JTFs (61):

Hungary	July 1993
Germany	February 1994
Canada	March 1994
Greece	April 1994
Ukraine	July 1994
Canada	December 1994
United Kingdom	March 1995
Germany	July 1995
Canada	April 1996
Czech Republic	July 1996
United Kingdom	August 1996
Ukraine	October 1996
Hungary	November 1996

Poland	May 1997
United Kingdom	July 1997
Russia	August 1997
Slovakia	September 1997
Bosnia	November 1997 ⁶
Turkey	December 1997
Turkey	January 1998
Czech Republic	April 1998
Georgia	May 1998
Bulgaria	May 1998
Ukraine	June 1998
Germany	October 1998
Romania	February 1999
Finland	May 1999
Czech Republic	June 1999
Baltic States	July 1999 ⁷
United Kingdom	July 1999
Italy	August 1999
Bulgaria	August 1999
WEU	September 1999 ⁸
Greece	November 1999
France	January 2000
Germany	February 2000
Romania	May 2000
Hungary	May 2000
Slovenia	August 2000
Ukraine	September 2000
Russia	October 2000
Benelux	October 2000
Poland	February 2001
Ukraine	February 2001
Canada	April 2001
Norway	June 2001
The Baltics	July 2001
Sweden	August 2001
Finland	August 2001
Ukraine	August 2001
Bulgaria	October 2001
Slovakia/ Czech Rep.	November 2001
Romania	August 2002
Italy	September 2002
Greece	November 2002
Germany	March 2003
Bosnia/ Herzegovina	March 2003
Sweden/Finland	May 2003

⁴ Russia conducted this JTF over Alaska.

⁵ The Benelux countries are Belgium, The Netherlands, and Luxembourg.

⁶ The United States and Russia conducted this JTF together.

⁷ The United States overflew Estonia, Latvia, and Lithuania in the course of this JTF.

⁸ This JTF over Western European Union (WEU) states included flights over France, Germany, and Spain.

The Baltics	June 2003
Bulgaria	September 2003
United Kingdom	March 2004

JTF Benefits



U.S. Open Skies Logo

Since the first JTF in April 1993, the United States has gained a great deal of experience and has streamlined many procedures. Overall, the JTF experience is extremely positive allowing participating Parties to benefit through practice. Originally, the flight plans and many JTF details were worked out well in advance of arrival. Today, in an effort to simulate actual observation flights more closely, participants adhere to treaty timelines as strictly as possible. Parties exchange notification data and flight plans according to treaty parameters. The observed Party still knows the specific week during which the JTF will occur. However, since EIF the notification timelines and protocols are strictly adhered to for actual observation flights.

JTFs have permitted U.S. personnel to test, operate, and maintain Open Skies aircraft and sensors in real-time scenarios. These flights have allowed escorts to practice their techniques aboard foreign Open Skies aircraft to ensure that sensors are operated according to treaty provisions and to verify that the aircraft is flown according to the flight plan. Additionally, JTFs have permitted escorts the opportunity to inspect Open Skies aircraft at point of entry airfields. Finally, JTFs have exposed aircraft servicing issues (e.g., fueling and maintenance) at foreign airfields and have allowed U.S. personnel to identify possible safety issues associated with certain flight paths.

JTFs Benefit POM/TNS

A key benefit of JTFs is that they have allowed the United States to fine-tune its Passive Overflight Module (POM)/Telephone Notification System (TNS). DTRA's predecessor organization, the On-Site Inspection Agency, developed the POM/TNS to notify registered sites of Open Skies observation flight information as it becomes available. JTFs have allowed DTRA personnel to practice operating the system during JTF missions to evaluate its effectiveness, determine possible improvements, and verify that the system was ready for implementation upon EIF.

When the United States receives notification of the arrival of Open Skies aircraft, the POM/TNS system notifies all registered sites. Once the final flight plan is entered into POM/TNS, the system sends out another notice notifying sites within the sensor footprint of the flight plan. The process is repeated each time the aircraft lands or takes off and notifies only the affected sites. A registered facility will have a maximum of 24-hour advance notice to prepare for the overflight.



Russian TU-154 Observation Aircraft

Individual sites must subscribe to this free service in order to receive notifications. They need only provide general information about their facility, such as its name, location (including latitude, longitude, elevation, and geographic orientation), point of contact, and contact phone numbers. Since this is a semi-automated system, 24-hour contact information should be provided.

Conclusion

This article has briefly reviewed the history and purpose of the Treaty on Open Skies JTFs. Through the conduct of JTFs, the United States and other States Parties have learned a great deal, gained valuable training, and increased confidence and cooperation among signatories. These experiences helped all States Parties to be ready for the commencement of actual mission flights at EIF.

For additional information about the Treaty on Open Skies, other arms control treaties, and the application of security countermeasures, contact the DTIRP Outreach Program coordinator at 800-419-2899 or dtirpoutreach@dtra.mil, or your local Defense Security Service (DSS) Industrial Security Representative.